EFFICACY OF PEMBROLIZUMAB AS CROSS-LINE TREATMENT IN ADVANCED NON-SMALL CELL LUNG CANCER: A MULTI-CENTER NON-INTERVENTIONAL STUDY FROM CHINA

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Background Pembrolizumab is a preferred drug in most major guidelines (e.g., NCCN, ESMO, Chinese consensus) for 1Line advanced non-small cell lung cancer (aNSCLC) patients (pts). However, whether Pembrolizumab treatment as cross-line is effective for aNSCLC has yet to be established. Therefore, this study was conducted to describe the treatment patterns and determine the effectiveness of Pembrolizumab treatment as cross-line for aNSCLC in real-world setting in China.

Methods Data of the study was from a multi-center, non-interventional, ambispective cohort study (NCT04153097). aNSCLC pts who treated with Pembrolizumab and provide written informed consent will be included. The main objective of this study is to evaluate pembrolizumab efficacy and safety in the clinical practice and explore the prognosis-relevant factors.

Efficacy end points were Median Overall survival (mOS, defined as the length of time from the administration of the first-dose until death from any cause). Objective Response Rate (ORR, defined as the percentage of patients with complete response (CR) and partial response (PR) according to irRECIST), and Median Time to Treatment failure (mTTF, defined as the time from the start of first-dose to discontinuation for any reason, including disease progression, treatment toxicity, patient preference, or death.)

Results From May 2020 to May 2021, 224 NSCLC pts (including a 60 pts retrospective cohort from Mar 2018 to Jan 2020) were enrolled in this observational Study. 117 aNSCLC pts were treated with pembrolizumab in the 1line. 80 pts failed first-line therapy. 30 out of 80 treated with Pembrolizumab as cross-line therapy with different chemotherapy regimens and (or) angiogenesis inhibitor.

For the 30 pts of cross-line therapy, the 1line ORR was 50% (15/30), 1line mTTF 148 Day (95% CI: 121 to 216), 2line ORR 20% (6/30), 2line mTTF 120 Day (95% CI: 86 to 358).

For the other 50 non-cross-line pts, the 1line ORR was 60% (30/50), 1line mTTF 118 Day (95% CI: 75 to 158).

Compared with the 50 non-cross-line (mOS 538 Day [95%: 331 to NA]) pts, 30 cross-line (mOS NA [524 to NA]) pts showed a significant improvement (Logrank \( p=0.036 \)) in survival benefits, HR (95% CI) 0.43 (0.19 to 0.97) (figure 1).

Conclusions In conclusion, the present study suggested that Pembrolizumab as cross-line treatment may serve as an option for aNSCLC patients to prolonged the OS. The efficacy should be confirmed in further investigations.

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Abstract 457 Figure 1 OS of Pembrolizumab cross line vs non-cross line in aNSCLC


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